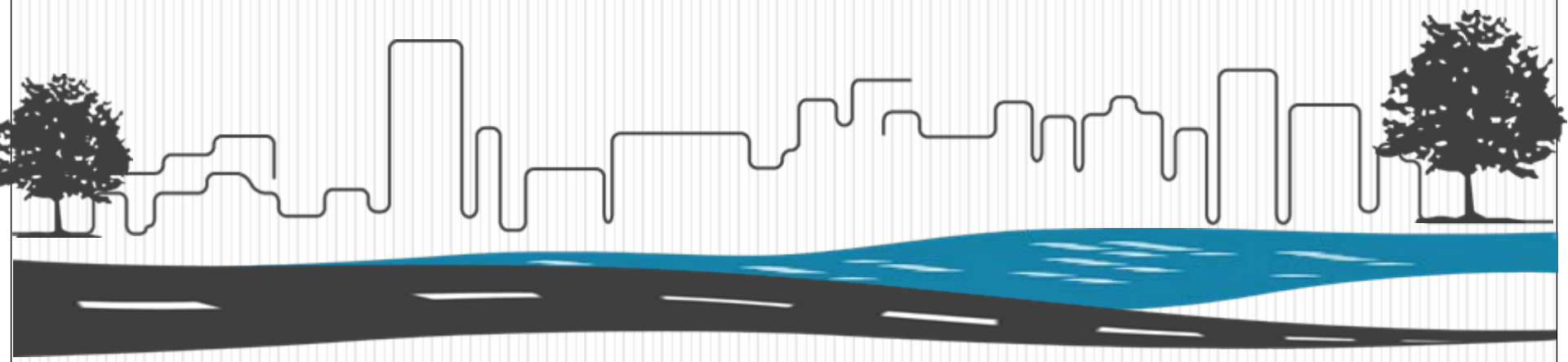
Turning Words into Action

Environmental Sustainability and Transportation Network Management



Jane Puddephatt, Mayurie Gunatilaka, Gary McLean
MWH New Zealand Ltd

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Agenda

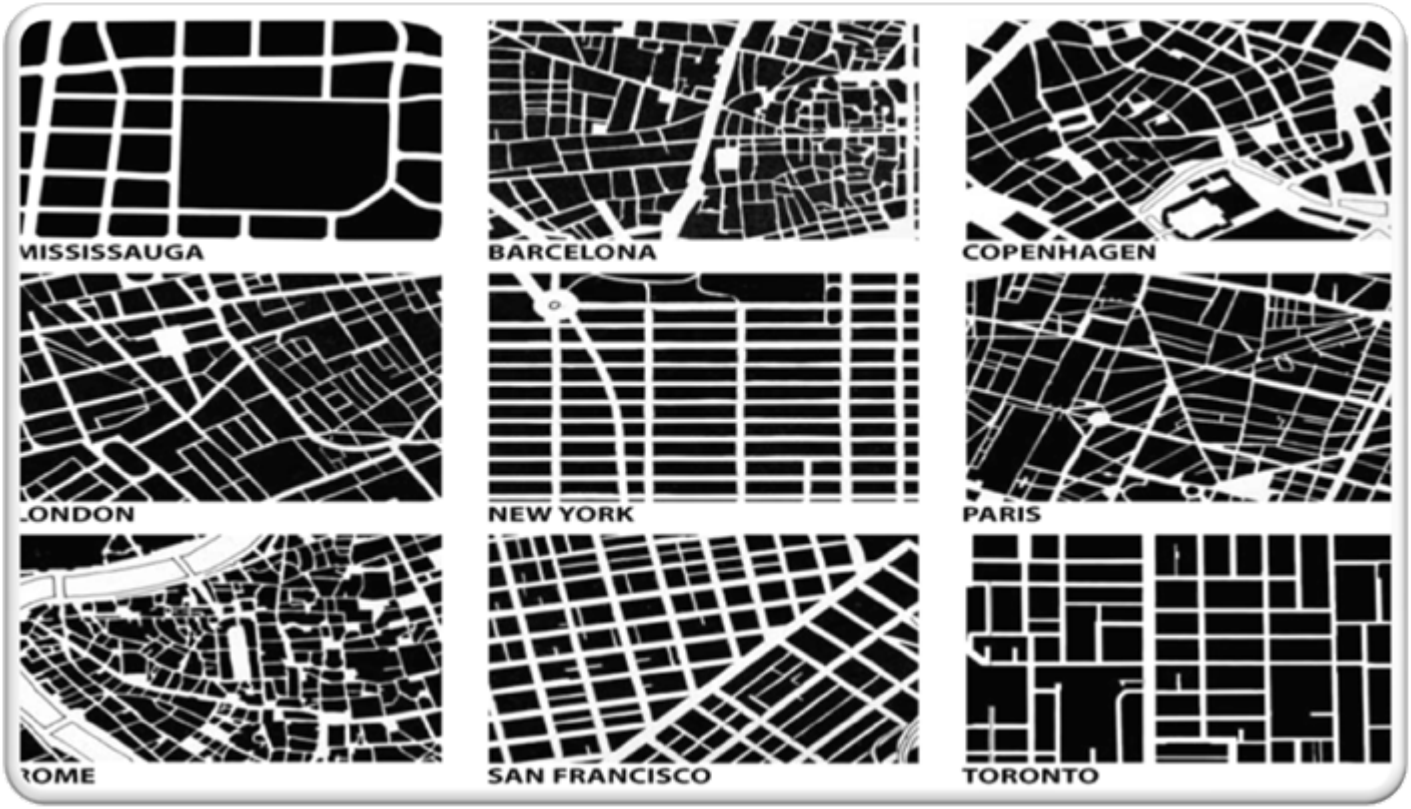
Turning Words into Action

Environmental Performance Improvement Framework

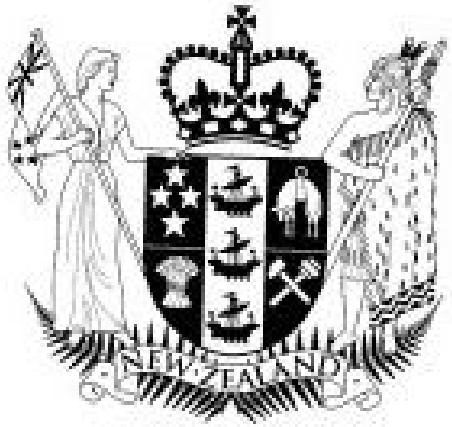
Case Study: Auckland Road Maintenance Alliance – West

Turning Words into Action

What's the issue with roads and the environment?



Legislation



Land Transport Management Act

The purpose of this Act is to contribute to the aim of achieving an affordable, integrated, safe, responsive, and ***sustainable*** *land transport system.*

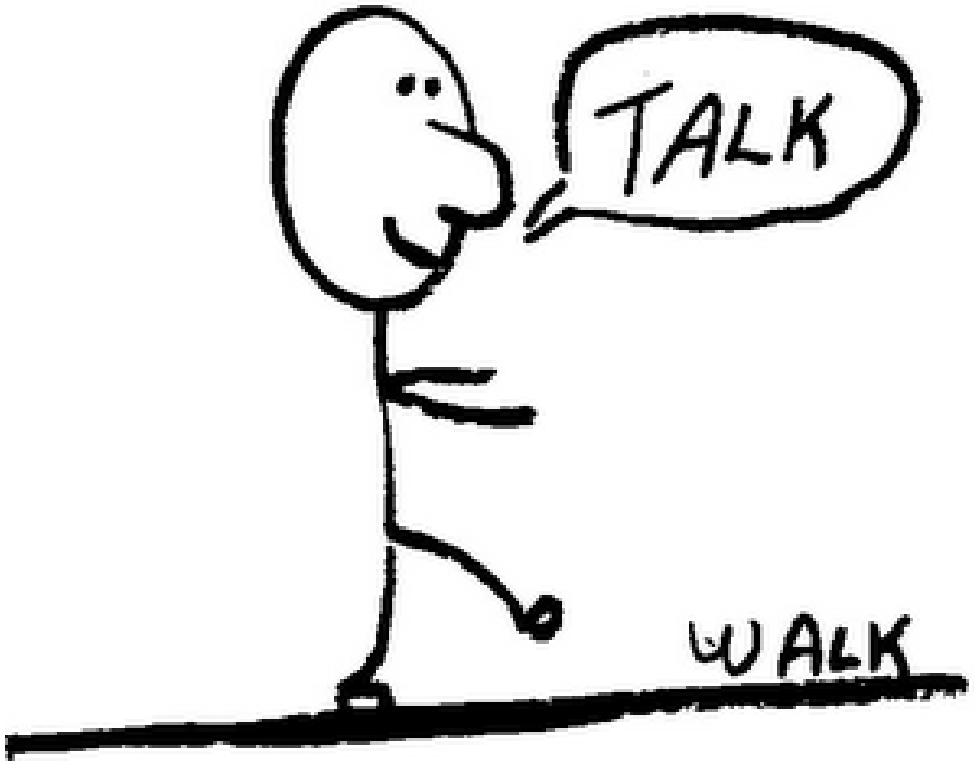
Strategy & Policy

Vision for transport in 2040

'People and freight in New Zealand have access to an affordable, integrated, safe, responsive and ***sustainable*** *transport system.'*

Contract Requirements

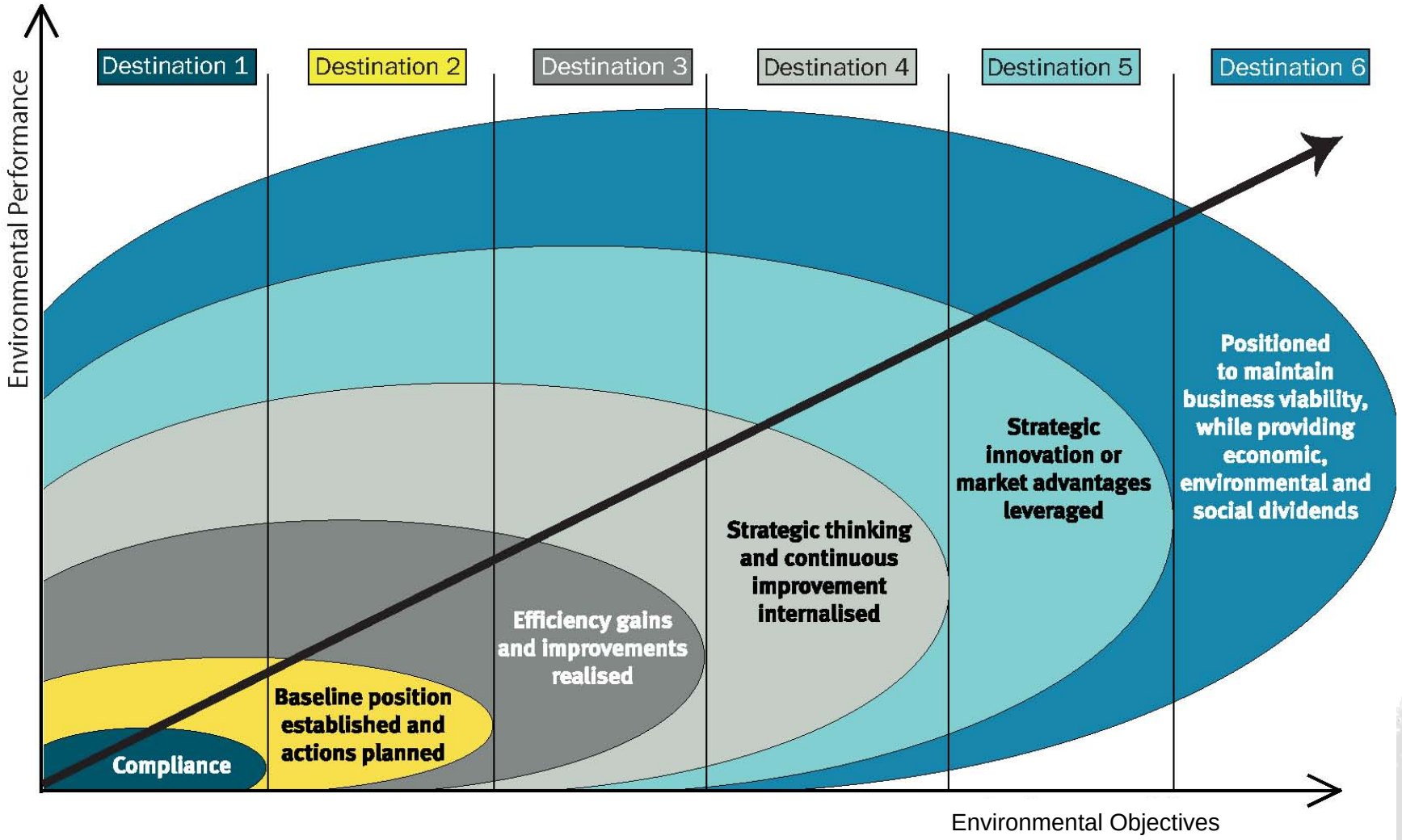
The Contractor is to avoid adverse effects on the ***environment*** *arising from any activity carried out as a result of this Contract and is to proactively work towards achieving* ***best practice.***


TALK
WALK

Environmental Performance Assessment Framework

Transportation Network Management

Performance Assessment



Adapted from the Business Sustainability Roadmap, Queensland Government, 2000

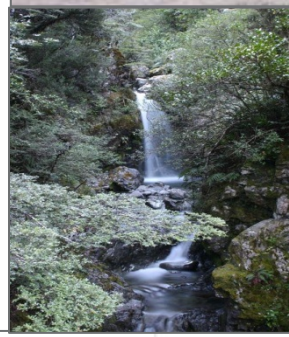
MWH Service

Auckland Road Maintenance Alliance – West

A CASE STUDY

Auckland Road Maintenance Alliance - West

The “WORDS”



Vision:

Together we will set the benchmark for road maintenance

Guiding principles are .....

- *Safety and sustainability are our priorities*
- *We build trust and teamwork*
- *We have collective responsibility and accountability*
- *We look after our stakeholders*
- *We challenge and innovate*
- *Our actions are based on best value for the network*

Asphaltic Concrete Milling

Asphalt Paving

Chipsealing

Pothole Repairs

Kerb and Channel Renewal

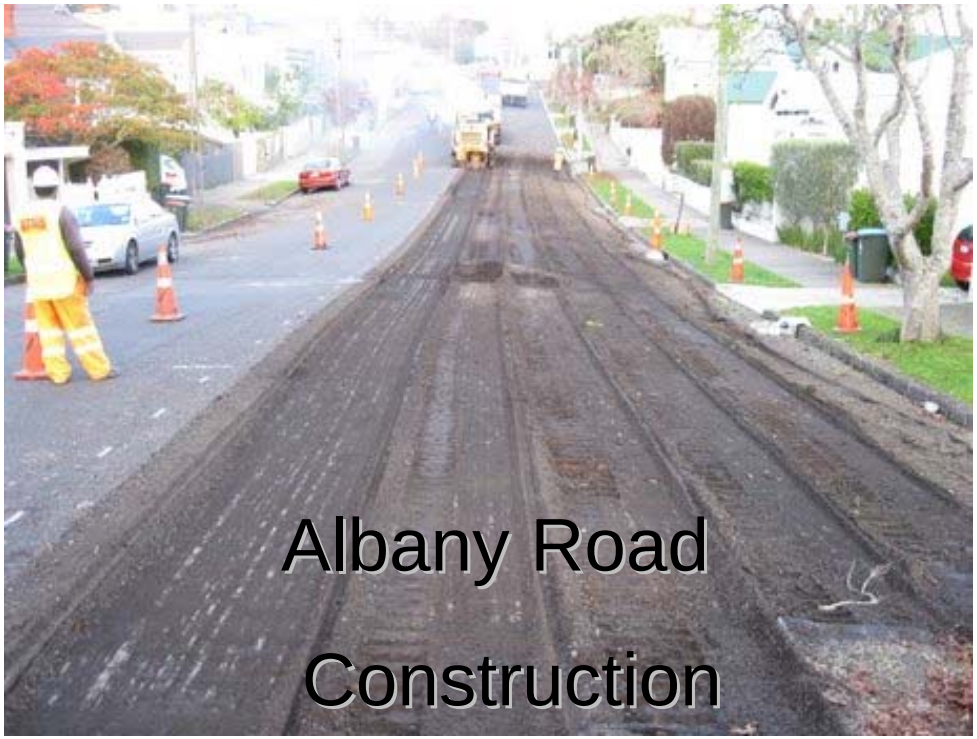
Catchpit Cleaning

Footpath Renewal

Road Maintenance

Environmental Risks

- Noise
- Dust
- Vibration
- Trees
- Stormwater
- Solid or Water Waste



Managing the Risks

Exercise (10mins)

- Work in groups
- Review ARMA-West Footpath Renewal site photo
- Identify the environmental risks on the site
- List the risks on the Hazard ID sheet provided
- Decide on the environmental controls to manage the risks and note them on the sheet
- Select a person to feedback to the wider group

Footpath Renewal Site

Noise

Tree Damage

Dust

Vibration

Stormwater Contamination

Concrete Contaminated Runoff

Controls

Environmental Controls

Stormwater Controls

❑ Refer to ARMA-West document “How to Wrap a Catchpit”.
❑ Install correct catchpit protection.
❑ Ensure catchpit back entry is protected.
❑ Monitor and maintain catchpit protection for duration of activity.
❑ Have relevant spill kit on-site during works.
❑ Maintain plant/equipment to minimise oil/fuel leaks; clean-up if leaks occur.

Concrete Runoff Controls

❑ Prevent all concrete contaminated runoff (high pH) from entering stormwater.
❑ Collect concrete contaminated runoff from washing, cutting and exposed aggregate activities.
❑ Dispose of wastewater appropriately.
❑ Refer to ARC guidance on “All Works Involving Concrete, Cement, Lime and Asphalt” pollution factsheet for further guidance.

Tree Controls

❑ Identify and manage sensitive/protected trees.
❑ Seek arborist advice before starting work if uncertain.
❑ Identify and protect tree roots.
❑ Do not park vehicles or store equipment under dripline of trees.

Dust Controls

❑ Minimise disturbed areas.
❑ Cover loose materials (e.g. Topsoil) to be stored overnight.
❑ Use a broom to sweep, if necessary (e.g. driveways).
❑ Use a water cart to suppress dust (to prevent stormwater contamination).

Vibration Controls

❑ Communicate planned activities with neighbours prior to work.
❑ Plan activities within acceptable work hours.

Noise Controls

❑ Communicate planned activities with residents and neighbours prior to work.
❑ Plan activities within acceptable work hours.
❑ Monitor machinery noise levels.
❑ Turn off equipment when not in use.
❑ Practice appropriate site behaviour (radio volumes down, quiet conversations and not slamming doors).

If you have any questions about environmental management please contact Russ Newton on 027 733 2059 (ARMA-West Health Safety and Environmental Supervisor) or the ARMA-West project manager.

Additional Environmental Tips:

• Protect the stormwater system BEFORE you start work.

• Inspect environmental controls daily to ensure they are working properly.

• Refer to the Auckland City Council Code of Practice for Working in the Road, *Appendix 1: Guideline for Working in the Vicinity of Trees* for further information on managing trees.

EMP Implementation: turning words into action

- Develop ARMA-West EMP tailored to carriageway maintenance
- Provide user friendly tools and processes
- Rollout Workshop facilitated by senior managers
- Induct everyone at ARMA-West
- Induct subcontractors to gain support
- Monitor the site performance through audits
- Measure Culture Shift

Environmental Performance

Health Safety & Environmental Performance

SiteSafe Audit Results: average monthly scores for 2009/10

	Health and Safety	Environmental
ARMA -West	**92%**	**83%**
Other Contractors	**87%**	**70%**

Other Success Factors

- Significant buy-in from senior managers
- Internal climate survey:
  - Sustainability is our priority. 83% +ve response
- Greater subcontractor awareness created and update EMP's
- Over comes literacy issues in the workplace
- Incremental improvement in site audits
- KPI's established for 2010/11

Alliance Rationale:

'When capable people with the right attitude are brought together into a collaborative environment, their interest aligned and effective leadership is provided, almost any challenge can be overcome'.